

AMENDMENT

In the Specification:

Prior to the first sentence of the specification, please add:

E¹
--This invention was made with government support under N00014-94-1-0312 awarded by the Department of the Navy, Office of Naval Research. The government has certain rights in the invention.--.

In the Claims:

Please amend the claims as follows:

E²
- -39. An assay method comprising:

- a) providing a sensor array comprising:
 - i) a first subpopulation comprising first sensor elements; and
 - ii) a second subpopulation comprising second sensor elements;
- b) adding a sample comprising a first target analyte that binds to said first sensor elements;
- c) measuring
 - i) a first fluorescent signal of a first of said first sensor elements; and
 - ii) a second fluorescent signal of a second of said first sensor elements; and
- d) summing said first and second fluorescent signals.

40. A method according to claim 39 further comprising:

- b) adding a sample comprising a second target analyte that binds to said second sensor elements;
- c) measuring
 - i) a third fluorescent signal of a first of said second sensor elements; and
 - ii) a fourth fluorescent signal of a second of said second sensor elements; and

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d) summing said third and fourth fluorescent signals.

41. A method according to claim 39 wherein said first and second sensor elements comprise beads.

43. A method according to claim 39 wherein said first and second sensor elements comprise chemical functional groups.

44. A method according to claim 39 wherein said first and second sensor elements comprise oligonucleotides.

46. A method according to claim 39 wherein prior to said summing, the baseline of said first and second fluorescent signals are adjusted.- -.
